HEURNIUS AND HERMANN, THE EARLIEST KNOWN PLANT COLLECTORS AT THE CAPE

By MIA C. KARSTEN

(With Plates III—V)

I. JUSTUS HEURNIUS

The Dutch missionary JUSTUS HEURNIUS (a Latinized form of VAN HEURNE or VAN HORNE) is generally regarded as the first European, of whom anything beyond a mere name is known, to have collected plants in South Africa and to have sent drawings of them to Europe.

It should be remembered, however, that before HEURNIUS had visited the Cape, a few South African plants had found their way to Europe. One of these, and perhaps the earliest, was a dried inflorescence of *Protea neriifolia*, R. Br., which had been picked up on the shores of the Cape, and which was figured by CLUSIUS in 1605[1], in his work *Exoticorum Libri Decem*, published in Antwerp. Moreover, DE L'OBEL[2] in the same year published woodcuts of two South African plants under the title "*Narcissus aphricanus bifolius*", which he had previously seen in a garden in Belgium, and whose bulbs had been sent from the neighbourhood of the Cape of Good Hope, where they had been dug up by "Guarus de Keyser" (as stated by DE L'OBEL), a person about whom nothing more appears to be known. There is little doubt that these drawings are meant to represent two species of *Haemanthus*, viz. *H. coccineus*, L. and *H. rotundifolius*, Gawl. The former species was later collected and figured by HEURNIUS (see below).

Part I of SWERTIUS'[3] *Florilegium* (1612) contains crude pictures of five plants

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[1] See G. W. REYNOLDS, *The Aloes of South Africa* (1950), p. 72.

[2] MATTHIAS DE L'OBEL (1538-1616), after whom the genus *Lobelia* was named, was physician to WILLIAM the Silent of Holland, and later botanist to JAMES I of England. The woodcuts appeared in his paper *Rariorum aliquot Stirpium Appendix*, published in G. RONDELLETII . . . *methodicam pharmaceuticam officinam animadversiones* . . . London, Purfoot, 1605. See S. GARSIDE's account, "South African Flora", which appeared in *South Africa in Print*, published in 1952 (Van Riebeeck Tercentenary); and H. M. L. BOLUS' Foreword of *Wild Flowers of the Transvaal* (1962), p. v.

[3] EMANUEL SWEERT or SWERTIUS (which actually should be Sweertius) was a Dutchman, born in 1552 at Zevenbergen near Breda (Noord-Brabant), and who died in 1612. SWEERT was a florist and one of the early 17th century exporters of bulbs. He sold his bulbs and plants at the yearly market at Frankfurt-am-Main (Germany), and to advertise his wares he published his *Florilegium* in 1612, the year of his death. The work is a picture-book of plants and a sale catalogue, without prices. It is printed in Latin, Dutch, German and French, and it is dedicated to his patron or protector, Emperor RUDOLF II. The exotic plants depicted in SWEERT's catalogue were more than likely brought to Holland on Dutch ships plying to the East and West Indies. The artist who did the plates is not mentioned: some of them are imitated from works of earlier engravers. The first edition of the *Florilegium*, printed in 1612, ran into several editions over a number of years.

The genus *Swertia* (Gentianaceae) was named in his honour by LINNAEUS who must have copied the spelling with one "e" from the *Florilegium*. The only South African species, also found in the Swaziland Protectorate, is *S. stellarioides*, Ficalho with references to the Cape of Good Hope. The plants are depicted on plates 66 and 67: they include only one flowering specimen, the remaining ones being bulbs with or without leaves. Four of them are likely to represent *Watsonia pyramidata*, (Andr.) Stapf (Iridaceae), in flower, and a *Drimia* sp. (Liliaceae), both on plate 66; *Boöphane disticha*, Herb. (Amaryllidaceae) and *Urginea altissima*, (L.f.) Baker (*Ornithogalum altissimum*, L.f.) (Liliaceae), shown in the left and right halves of plate 67. The fifth one, in the right half of plate 66 below the Drimia bulb, and looking like a rhizome, could not be identified.

Another Cape plant, collected and figured before HEURNIUS' drawings were published, is an Iridaceous plant now known as *Ferraria undulata*, L. It was the Italian botanist FERRARI[4] who published in 1633 a line-engraving of this type species of a genus which LINNAEUS rightly named after him. But in all these cases (except for "Guarus de Keyser") the actual collectors of the plants figured and described are unknown.

Returning to HEURNIUS[5], he was born at Leyden on November 17, 1587, being the sixth child of JOHANNES HEURNIUS (1543–1601), a descendant of a well-known and noble family, who was professor of medicine at Leyden University, and of CHRISTINA BEIERS.

On July 17, 1602, when only 15 years old, he was registered as a student in the faculty of medicine at Leyden University, where he received his doctor's degree on April 18, 1611. Shortly after his graduation he undertook a lengthy journey to France and England, during which he changed his mind as to his career: he wanted to become a missionary in order to work for the conversion of the "Indians". On his return to Holland he took up divinity at the University of Groningen, where he studied from December, 1615 until 1618. Soon after completion of his theological studies, when he had become a minister at the little village of Kalslagen in Holland, he wrote his "De Legatione evangelica ad Indos capessenda admonitio" (Memorandum on an evangelical mission to be undertaken to the Indies), in which he urges the authorities and governors of the Dutch East India Company to promote the Christianization of the peoples who had been brought under their rule. As a token of appreciation the "Staten-Generaal" (Dutch government) to whom he had dedicated his work, presented him with a bonus of 100 guilders. Moreover, this essay was the reason that he was called to the East Indies by the Synod of Amsterdam on November 13,

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[4] GIOVANNI BATTISTA FERRARI (1584–1655). The line-engraving referred to was published in his work *Flora seu florum cultura*, Rome, 1633. A second edition appeared in 1646. From S. GARSIDE's account "South African Flora", see footnote 2.

The Iridaceous genus *Ferraria* was named after him by LINNAEUS. According to E. P. PHILLIPS, *The Genera of South African Flowering Plants* (1951), the genus comprises 22 species, natives of Africa and South America, 12 of them being found in South Africa. The type species is *F. undulata*, L., a South African plant.

[5] The following biographical records of JUSTUS HEURNIUS and of his father and brother have been taken from A. J. VAN DER AA, *Biographisch Woordenboek* [Biographical Dictionary], Vol. 6–7 (1867), pp. 228–9.–P. C. MOLHUYZEN en P. J. BLOK, *Nieuw Nederlandsch Biographisch Woordenboek* (1911–1937), pp. 230–1, 745–6, 747.

1623. Very soon after, on January 9, 1624, he sailed from Holland in the Indiaman *Gouda* and arrived at Batavia on July 17 of that year. He worked under the Dutch governors-general JAN PIETERSZ COEN, JACQUES SPECX and HENDRICK BROUWER. In 1632 he was posted by Governor SPECX, who disagreed with him on church matters, to the "Coromandel Coast"[6], but the very same year he returned to Batavia, where in the meantime SPECX had been replaced by BROUWER as G.G. In 1633 he was transferred to the island of Amboina (Moluccas), where he worked for a short time as a missionary. Thence he was sent to the Oeliassers (or Oeliasers, both spellings are used), a group of three small islands to the east of Amboina, viz. Haroekoe, Saparoea and Noesa Laoet. He did important mission work on Saparoea, in his day called Honimoa. However, in September, 1635 he had to leave the Oeliassers, having been poisoned by hostile Mohammedans, causing a paralysis of his hands and feet. The Governor recalled him to Amboina, where he worked until May 17, 1638, when he left for Batavia by way of Flores and Bali, which form part of the Lesser Sunda Islands group. On December 23, 1638 he returned to Holland, and in March, 1640 he was appointed third clergyman of the small town of Wijk bij Duurstede, but he retained his interest in mission work.

It is not exactly known when he died, but it is generally understood that his death occurred between September, 1651 and September, 1652.

The voyage to the East Indies in 1624 was to be a long and tedious one: of the 348 souls on board no less than 19 died, probably many of them of scurvy, before the *Gouda* reached Batavia. On the way to the Indies there was the usual stop at the Cape of Good Hope for taking in water and other supplies. In those days (28 years before JAN VAN RIEBEECK'S arrival!) there was nothing in the way of a settlement where Cape Town now stands, not even a fort. When the *Gouda* was taking in supplies in the Bay, HEURNIUS went ashore, and undertook a little expedition to the mountain slopes, perhaps because it furnished a good view over the surrounding country. Here he collected a number of plants, among them what is now called *Stapelia variegata*, L. in flower, which by later collectors, e.g. N. S. PILLANS, was found on the northern slopes of Table Mountain and Lion's Head.

Although mission work was his chief concern, he appeared to have been interested in botany. The wonderful Cape flora must have greatly appealed to him. Of ten of the plants he collected on the Cape Peninsula, he made simple but recognisable drawings. These he sent, after he had reached the East Indies, to his brother OTTO HEURNIUS[7] at Leyden, who passed them on to JOHANNES

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[6] North-south stretch of coast on the east of India.

[7] OTTO HEURNIUS (1577–1652), eldest son of JOHANNES HEURNIUS, became a doctor of medicine at Leyden University in 1601. The same year he was appointed professor extraordinary of medicine, and ten years later he received the ordinary professorship.

BODAEUS STAPELIUS (a Latinized form of VAN STAPEL or à STAPEL), a young doctor in Amsterdam, who had graduated at the University of Leyden in 1625. VAN STAPEL'S life work was the preparation of an annotated edition of the botanical works of THEOPHRASTUS, which he left almost completed on his untimely death in 1636. The work was finished and published by his father, EGBERT BODAEUS STAPELIUS, Amsterdam, 1644, under the title *Theophrasti Historia Plantarum*. HEURNIUS' pictures of Cape plants and also of a number of species from the East Indies, with accompanying descriptions, were included in this work: they cover pp. 333–6 and are introduced by the following note[8]: "Here we have described [actually the descriptions were by HEURNIUS] certain Indian plants, the drawings of which the most Reverend Father and Doctor Justus Heurnius sent from East India to his brother Otto Heurnius . . . , from whom we have received a description of them. Everyone who cultivates the study of botany, must be grateful for this to the sons of Johannes Heurnius".

There is no doubt that HEURNIUS himself was responsible for the descriptions, which show him as a man with a fair knowledge of botany and as a keen observer. The accurate descriptions he gives are evidently based on the plants he collected, as they give full details such as the colour of the flowers, times of flowering, etc. What STAPELIUS calls "Indian" plants include the Cape ones.

The plants of the Cape of Good Hope drawn and described by HEURNIUS are the following:

P. 333: (1) "Laurus serrata odora, promontorii bonae spei". A little branch with a few leaves; no flowers. Very likely *Myrica conifera*, Burm. (Myricaceae).

P. 334: (2) "Tulipa promontorii bonae spei". Two pictures, viz. of a flowering specimen, and of a bulb with the two prostrate leaves. *Haemanthus coccineus*, Jacq. (Amaryllidaceae). (3) "Verbena Indica lanuginosa" (Woolly Indian Verbena). This is almost certainly a Cape plant, *Manulea rubra*, L. (Scrophulariaceae). The fact that it is called an Indian plant does not necessarily imply that it came from what we now mean by India.

P. 335 (Plate II): (4) "Sedum arborescens promontorii bonae spei", *Cotyledon orbiculata*, L. (5) "Frutillaria crassa promontorii bonae spei", *Stapelia variegata*, L. (Asclepiadaceae). (6) "Iris uvaria promont. bonae spei", *Kniphofia uvaria*, (L.) Hook. (Liliaceae).

P. 336: (7) "Vtricaria". The plant depicted consisting of a bulb, two leaves and an inflorescence, is probably *Micranthus tubulosus*, N. E. Br., an Iridaceous plant, whose leaves are inflated. (8) "Nummularia mucronata promont. bon. spei", ? *Centella villosa*, L.f. (Umbelliferae). (9) "Acetosa bulbosa", *Oxalis*

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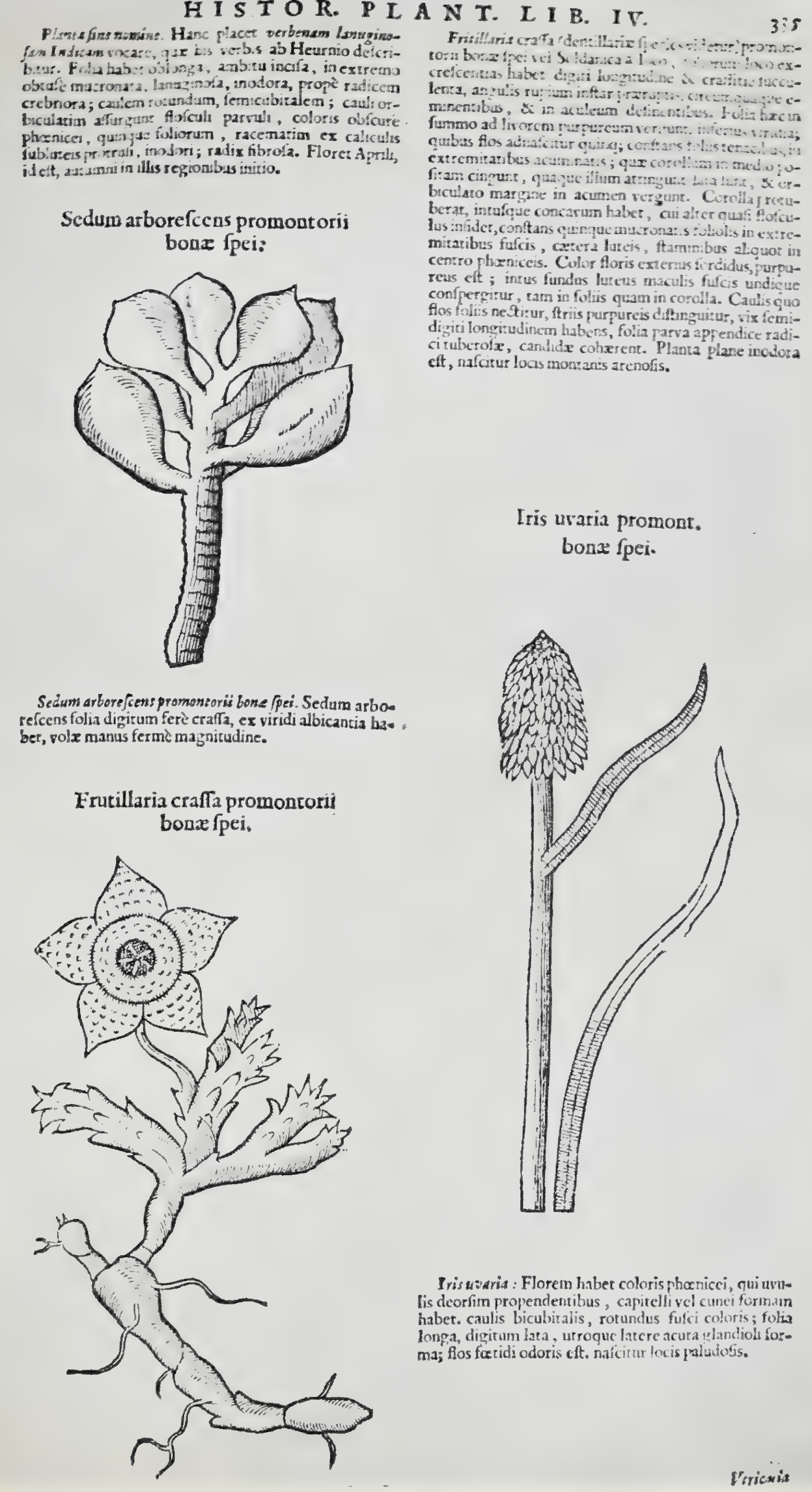
[8] Original Latin text: "Hoc loco plantas quasdam Indicas describemus, quarum icones, ex India Orientali doctiss. & reverendissimus Pastor ac Medicus Iustus Heurnius, misit fratri Otthoni Heurnio . . . , à quo has describendas accepimus. Istis itaque Ioannis Heurnii filiis gratis agere de his debent, qui studium botanicum colunt".



HISTOR. PLANT. LIB. IV. 335

Planta ſine nomine. Hanc placet *verbenam lanuginoſam Indicam* vocare, quæ his verbis ab Heurnio deſcribitur. Folia habet oblonga, ambitu inciſa, in extremo obtuſè mucronata, lanuginoſa, inodora, propè radicem crebriora; caulem rotundum, ſemicubitalem; cauli orbiculatim aſſurgunt floſculi parvuli, coloris obſcure phœnicei, quinque foliorum, racematim ex caliculis ſubluteis protruſi, inodori; radix fibroſa. Floret Aprili, id eſt, autumni in illis regionibus initio.

Sedum arboreſcens promontorii
bonæ ſpei:

Sedum arboreſcens promontorii bonæ ſpei. Sedum arboreſcens folia digitum ferè craſſa, ex viridi albicantia habet, volæ manus fermè magnitudine.

Frutillaria craſſa promontorii
bonæ ſpei.

Fritillaria craſſa (dentillariæ ſpecies videtur) promontorii bonæ ſpei vel Saldanica a loco, [illegible] loco excreſcentias habet digiti longitudine & craſſitie ſucculenta, angulis rupium inſtar præruptis, circumquaque eminentibus, & in aculeum deſinentibus. Folia hæc in ſummo ad livorem purpureum vergunt, inferius viridia; quibus flos adnaſcitur quinq; conſtans foliis tenellis, in extremitatibus acuminatis; quæ corollam in medio poſitam cingunt, quaque illum attingunt lata ſunt, & orbiculato margine in acumen vergunt. Corolla protuberat, intuſque concavum habet, cui alter quaſi floſculus inſidet, conſtans quinque mucronatis foliolis in extremitatibus fuſcis, cætera luteis, ſtaminibus aliquot in centro phœniceis. Color floris externus ſordidus, purpureus eſt; intus fundus luteus maculis fuſcis undique conſpergitur, tam in foliis quam in corolla. Caulis quo flos foliis nectitur, ſtriis purpureis diſtinguitur, vix ſemidigiti longitudinem habens, folia parva appendice radici tuberoſæ, candidæ cohærent. Planta plane inodora eſt, naſcitur locis montanis arenoſis.

Iris uvaria promont.
bonæ ſpei.

Iris uvaria : Florem habet coloris phœnicei, qui uvulis deorſim propendentibus, capitelli vel cunei formam habet. caulis bicubitalis, rotundus fuſci coloris; folia longa, digitum lata, utroque latere acuta glandioli forma; flos fœtidi odoris eſt. naſcitur locis paludoſis.

Vtricula

Plate III. Page 335 of Johannes Bodaeus Stapelius, *Theophrasti Historia Plantarum* (1644).

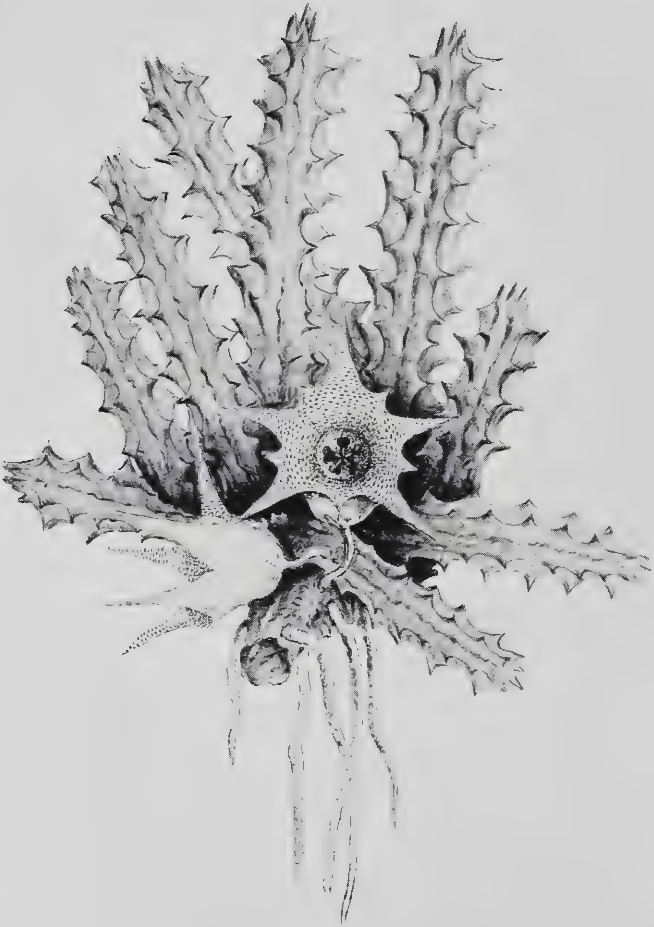


Plate IV. *Huernia campanulata*, R. Br., the type species. From a water-colour drawing by Col. R. J. Gordon. By permission of the Rijksmuseum, Amsterdam.

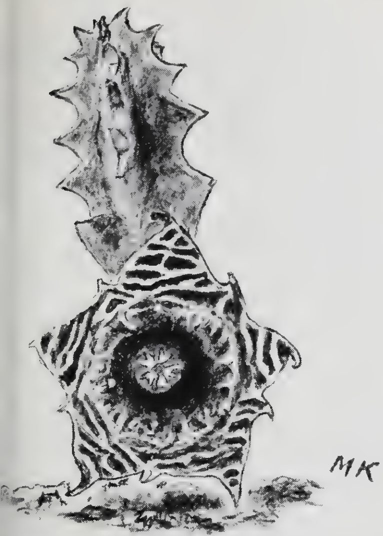


Fig 1.

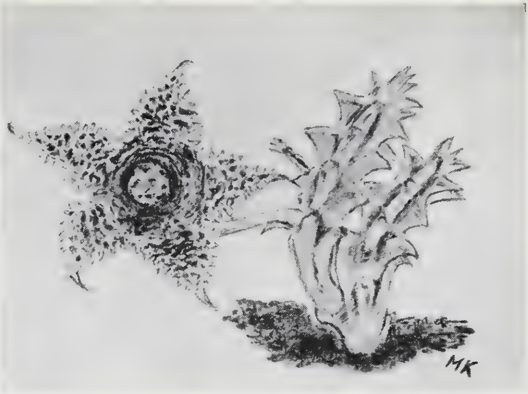
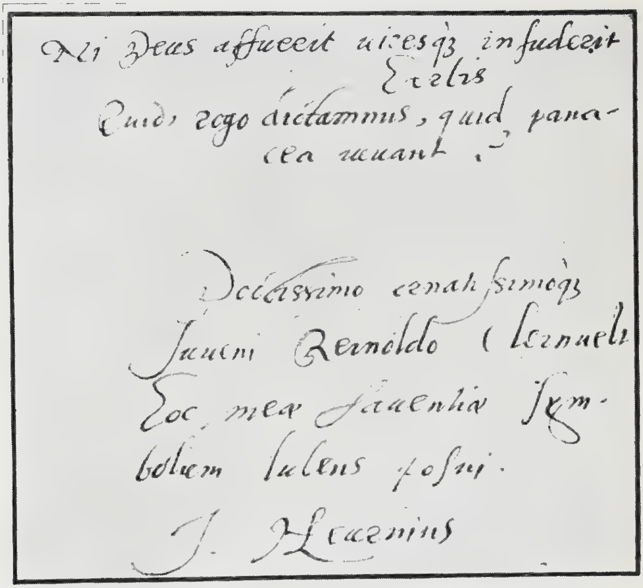


Fig. 2.



Nisi Deus affuerit viresq; infuderit
Herbis
Quid, rogo, dictamnus, quid pana-
cea iuvant?

Doctissimo ornatissimoq;
Juveni Reinoldo Clernueli
hoc meae faventiae sym-
bolum lubens posui.
J. Heurnius

Fig. 3.

Plate V. Fig. 1. *Huernia hystrix*, N. E. Br. Flowering specimen in the Herbarium Garden of the Botanical Survey of Swaziland, Mbabane. June, 1961. M. Karsten del.

Fig. 2. *Huernia zebrina*, N. E. Br. Flowering specimen in the Herbarium Garden of the Botanical Survey of Swaziland, Mbabane. May, 1961. M. Karsten del.

Fig. 3. Facsimile of Justus Heurnius' handwriting. Autograph sentiment written by him in the album of a young friend. The text reads: "Nisi Deus affuerit viresque infuderit herbis, quid, rogo, dictamnus, quid panacea juvant? Doctissimo ornatissimoque Juveni, Reinoldo Clernueli, hoc meae faventiae symbolum lubens posui. J. Heurnius". Translation: "Unless God be near and impart His strength to the herbs, what, I ask, will dittany, what will heal-all avail? For the very learned and gifted youth, Reinold Clernuel, I have gladly written this token of my good-will."

By permission of the Publishers of White & Sloane, *The Stapelieae* (1937).

versicolor, L. (10) "Trifolium bulbosum flore albo promont. bonae spei", *Oxalis ? purpurea*, L. var. *alba*.

Pictures of two species of plants indigenous to the East Indies are mixed with those from the Cape. On p. 333 we find what is probably a sketch of the nutmeg, *Myristica fragrans*, Houtt., a branch bearing a few leaves and two fruits, and the "nucleus cum cortice" (kernel with seed-coat) drawn separately. P. 334 shows, under the name "Langoas" a *Canna* sp. (pedicel with leaf, flowers and fruits).

In two of the old Cape floras tribute is paid to Heurnius as the earliest collector of Cape plants.

§ V of Linnaeus' *Flora Capensis*, a botanical dissertation of C. H. Wännman, but written under Linnaeus' direction, gives some short notes on early collectors at the Cape and botanists in Europe who had not visited the Cape themselves, e.g. Jan Burman, who worked on Cape plants. Published in Uppsala in 1759 as a little pamphlet of 19 pages only, it is known as the very first, and shortest, flora of the Cape. The list referred to starts with Heurnius, and what is said about him reads as follows (translated from the Latin): "The plants of the Cape have for a considerable time escaped the attention of Botanists; among the first plants here discovered must be mentioned those which Justus Heurnius, Minister and Doctor in East India, sent to his brother Otto Heurnius. . . . These were the following: *Canna*, *Kiggelaria Africana* [this may be a mistake for what appears to be *Myrica conifera*, Burm.], *Haemanthus coccineus*, *Cotyledon orbiculata*, *Stapelia variegata*, *Aloe Uvaria*, and two *Oxalis* species, which Stapelius in *Theophrastus* 1644, p. 333 produced and sketched".[10]

The author makes a mistake by stating that Heurnius sent *plants* to his brother. Moreover, the *Canna* is erroneously mentioned as one of the Cape plants. Three other Cape plants depicted by Heurnius, are omitted from this list (see above).

Thunberg in his Flora Capensis[11] pays tribute to Heurnius under the

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[9] C. H. Wännman, *Flora Capensis* (1759), § V, p. 4; republished in Linnaeus, *Amoenitates Academicae*, Vol. V, pp. 353–370 (1760), Heurnius p. 356.

[10] Orig. Latin text: "Plantae Capenses diutissime Botanicorum industriae sese subduxerunt; inter primas plantas hic detectas nominandae sunt, quas Justus Heurnius, Pastor & Medicus in India orientali, misit ad fratrem Ottonem Heurnium, . . . Fuerunt vero hae: CANNA . . . OXALIDES duae, quasque Stapelius in *Theophrastum* 1644, p. 333. *edidit & delineavit*".

[11] C. P. Thunberg, *Flora Capensis* (1823 ed. Schultes). Praefatio Auctoris, p. VII. Orig. Latin text: "Botanici et Collectores, qui ipsi hocce promontorium salutarunt". Heurnius is the first collector mentioned, and the Latin of the above quotation reads as follows: "Numerus quidem plantarum exiguus fuit, cum brevi heic versatus excursiones suas eo tempore vix ultra viciniam montis Tabularis extendere potuisset; sed singulares hujus regionis gazae non modo rarissimae fuerunt sed summam quoque Botanicis Europaeis admirationem excitarunt".

heading "Botanists and Collectors who devoted themselves to this same Cape". Having introduced Heurnius as the very first person who collected plants at the Cape, he continues: "The number of these plants was scanty, since he only managed to carry out short excursions, and in the time at his disposal was scarcely able to wander beyond the neighbourhood of Table Mountain: but the unique treasures of this region were not only extremely rare, but excited the highest admiration of European Botanists".

In his *Critica Botanica*, published in 1737, Linnaeus first proposes the generic name *Stapelia*, and two months later he wrote in the *Hortus Cliffortianus*[12]: "I have named this genus after Johannes Bodaeus à Stapel, a most painstaking commentator on the works of Theophrastus, since he was by far the earliest person who distinguished the above species".

The species referred to is the plant depicted under the name "*Frutillaria crassa*" (correct spelling Fr*i*tillaria), the flower of which being described by Heurnius in these words (translated from the Latin): "Within the yellow base it was everywhere sprinkled with dark spots"[13], which suggested a comparison with *Fritillaria meleagris*, L. (Liliaceae). The plant was consequently named by Linnaeus *Stapelia variegata*. But he should have honoured Heurnius rather than van Stapel, by naming this genus after him, the credit of the discovery of this first species of a new genus being due to him.

But a later botanist, Robert Brown, paid him tribute by naming another genus of the Stapelieae after him: *Huernia*, R. Br., founded on *H. campanulata*, R. Br., the "Bell-shaped Huernia", in Memoirs of the Wernerian Society, Vol. i (1811), p. 22. The name as introduced in this publication shows an inaccuracy, viz. the spelling Huernia instead of H*eu*rnia. In an explanatory note Brown says: "I have named the genus in memory of Justus Heurnius." But in the reprint in Brown's collected works (l.c., Vol. ii (18?), p. 206, the collector's name is printed "Huernius": it does not occur in Brown's MSS.[14]. According to the international nomenclature regulations this error in the spelling has to be perpetuated.

The water-colour drawings of a number of Cape plants made by Col. Robert Jacob Gordon[15], housed in the State Printroom which forms part of the Rijksmuseum in Amsterdam, include an excellent picture of *H. campanulata*, which is reproduced herewith (Plate IV). A comparison shows that Gordon's drawing of this species is better than the one reproduced in MASSON's *Stapeliae Novae* (1796), under the name *Stapelia campanulata*, Mass. The species was first collected by MASSON "in dry places" as he tells us[16]. There is little doubt that the Great Karroo was referred to, for it was rediscovered about 1930 by G. J. DE WYN near Prince Albert. Later it was also found in the Ladismith and Oudtshoorn districts of the Cape[17].

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[12] Linnaeus, *Critica Botanica*, Leyden, dated May 31, 1737; p. 13. Idem, *Hortus Cliffortianus*, July 30, 1737; p. 77, orig. Latin text: "Dixi hoc genus a Johanne Bodaeo à Stapel laboriosissimo commentatore in Theophrasti opera, cum is facile primus fuerit, qui priorem detexit speciem".

[13] Orig. Latin text: " . . . intus fundus luteus maculis fuscis undique conspergitur" (vide Pl. III, a reproduction of p. 335 of Stapelius' work; Heurnius' description of "Frutillaria crassa" in the right top corner, the above quotation lines 6 and 5 from below).

[14] James Britten, *Some Early Cape Botanists and Collectors*, Journ. Linn. Soc.—Botany, Vol. xlv (1920–22), p. 30.

[15] This Journal, Vol. XXVII, Jan. 1961, pp. 35–7.

H. campanulata is a most striking species with its large campanulate flowers, exquisitely marked and coloured. When expanded they are about 1½ in. in diameter. They are produced 2 to 3 together near the base of young stems, developing in succession. The outside of the flowers is smooth, pale greenish, spotted with purple; the inside minutely papillate, bearded with stiff purple hairs at the throat of the tube, and of a whitish or pale sulphur-yellow colour, marked with blackish-purple or blackish-crimson spots, passing into transverse lines in the tube, which is entirely dark purple at the base.

Flowers quite different in appearance are produced by *H. hystrix*, N. E. Br. and *H. zebrina*, N. E. Br., which were much later discovered and found widely distributed, particularly the latter one. Both of them are among the many Asclepiadaceae which form part of the Swaziland flora. I have included in this paper drawings of these two species which have been made from specimens collected in this Territory.

Specimens of *H. hystrix*, N. E. Br., the "Porcupine Huernia" (Plate V, Fig. 1), were collected by me in the bushveld near Stegi, at an altitude of c. 1000 ft., on November 26, 1958, but they were not in flower at the time. They were planted in the little Herbarium Garden of the Botanical Survey at Mbabane, where they ultimately started flowering in December, 1960; the accompanying picture was made of a flower produced in June, 1961. The flower is just over 1½ in. in diameter with a short tube. The inner surface of the corolla is densely covered with short spiny papillae, hence the name "Porcupine H." The colour of the corolla is ochreous-yellow to brown, marked with crimson spots on the lobes and with numerous transverse crimson lines within the smooth and paler tube, and the "spines" themselves are tipped with red. The flowers are characterized by a fish-like odour.

As to its distribution, other Swaziland localities are Ingwavuma Poort and Grand Valley in the Hlatikulu district, respectively at an altitude of 500 and 2500 ft. Further it is found in the Barberton, Pietersburg and Zoutpansberg districts of the Transvaal; in Natal, where this species was first collected, but the precise locality is unknown; in Zululand, the Orange Free State and as far as Portuguese East Africa and Matabeleland in Southern Rhodesia.[18].

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[16] Ibid., p. 29.

[17] WHITE & SLOANE, *The Stapelieae*, Vol. III (1937), p. 947.

[18] The various localities of *H. hystrix* and *H. zebrina*, apart from those in Swaziland, have been taken from WHITE & SLOANE, *The Stapelieae* (1937), Vol. III, pp. 892–3, 927–8. See the same source for full descriptions of these species.

The picture of *Huernia zebrina*, N. E. Br. (Plate V, Fig. 2), the "Zebra-like Huernia" or "Life-buoy Flower", I made in May, 1961 of a flowering plant growing in the Herbarium Garden, which was originally collected by Capt. D. R. Keith in Swaziland, but there are no records as to the locality and the date of collecting. The specimen might have been found in the Stegi district. The flowers of this species are most distinctive because of the very prominent fleshy ring or annulus around the mouth of the corolla tube. The name "Life-buoy Flower" could not have been better chosen. The flower in the picture measures 1½ in. in diameter, which is slightly above its actual size. The tube is very shortly campanulate, constricted and about ¼ in. in diameter at the mouth, the limb[19] is slightly saucer-shaped, very abruptly spreading from the tube, raised around its mouth into a broad thick convex ring which is very shiny. The corolla lobes are deltoid, very acute and at their inner surface sulphur-yellow or pale greenish-yellow, marked with transverse purple-brown broken bands in a zebra-like pattern which pass into spots upon the smooth swollen ring.

H. zebrina was originally collected in Zululand, but the precise locality is unknown. Later on it was found at Mkusi in Zululand which might be the type locality. Other localities are in the Zoutpansberg, Potgietersrus, Pietersburg and Barberton districts of the Transvaal. Moreover the species has been reported from the Bechuanaland Protectorate, while it was collected by Prof. Kurt Dinter in Great Namaqualand (South West Africa), a photograph of which was published in his work *Neue und wenig bekannte Pflanzen Deutsch Südwestafrikas* (New and little known plants of German S.W.A.), 1914. In the Swaziland veld one often comes across this interesting little Stapeliad. We collected it at an altitude of 500 ft. at Big Bend, Ingwavuma Poort and Usutu Poort in the Hlatikulu district. At Big Bend it was found growing among rocks, at Usutu Poort we spotted specimens trailing under bushes. Another Swaziland locality is at Blue Jay Ranch (500 ft. altitude) in the Stegi district.

Robert Brown did well in commemorating the name of this early pioneer in the field of South African botany by this remarkable genus.

As a fifth illustration (Plate V, Fig. 3) I have included a facsimile of Heurnius' handwriting, taken from White & Sloane's *Stapelieae* (Vol. III (1937), Appendix A, p. 1111, Fig. 1187).

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[19] Limb: the spreading part of the corolla outside the central tube.

(To be continued.)